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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,911	12/26/2001	Dong Jae You	8733.543.00	7511

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EXAMINER
DONG, DALEI

ART UNIT	PAPER NUMBER
2875	

DATE MAILED: 03/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/025,911	YOU, DONG JAE	
	Examiner	Art Unit	
	Dalei Dong	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133)
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 March 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) *7-12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *10/025,911*.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,709,450 to Francis.

Regarding to claims 1-6, Francis discloses in Figures 4 to 6, Mounting the DLA 14 in the central opening 12 of the reflector housing 10 is a base 16. The base 16 has an O-ring groove 18 allowing for placement of an O-ring 20 to prevent the entry of moisture or other contaminants into the sealed environment which surrounds the DLA 14. The base 16 has a first concentric conductor 22. The first base conductor connects end 24 of the DLA. An opposite end of the first conductor 22 is connected to a cap or pin 26. A far end 28 of the DLA is connected to a second eccentric conductor 30. Conductor 30 is provided with a voltage insulating layer 32 and is connected at its first end which penetrates into the base 16 with a collar terminal 34. The collar terminal 34 extends substantially along the whole periphery of an annular groove 36 provided in the base 16. The base 16 also has a general axial depression 38 which accepts a voltage isolation member 40 which encircles the connection pin 26. The base 16 additionally has a groove 42 and an O-ring 44 which provide sealing for the base with respect to a socket 50.

Typically, the base 16 will be supplied by the DLA manufacturer and will be made from a polyphenylene sulfide plastic material" (column 2, line 13-33)

Francis also discloses in Figures 4 to 6, "rotatably mounted on the base 16 is the socket 50. The socket 50 has a first concentric conductor 52 having a collar 54 at one end and a blade terminal 56 at an opposite end. The collar 54 of the first conductor 52 is provided for electrically mating with the pin 26 of the base first conductor 22. The socket 50 also has a second conductor 58 with a collar terminal 60 at an end adjacent to the base 16 and a blade terminal 61 at an opposite end. The collar terminal 60 has a series of six radially inwardly directing contact fingers 62. This ensures continuous contact with the collar 34 provided in the base 16. Continuous electrical contact is critical since interruptions of current of as low as 10 microseconds may cause an interruption of the DLA 14. The collar terminal 60 also has two barbs 64 which help ensure proper retention of the first conductor 58 within the socket 50. In a similar fashion, optionally the first conductor member 52 terminal collar 54 has stamped bumps to help ensure continuous contact with the pin 26. (Note: The bumps may be eliminated to lower insertion forces.) Pin 26 is welded with the base first conductor 22. In a like manner, second conductor 30 is welded with the ring terminal 34" (column 2, line 34-54)

Francis further discloses in Figures 4 to 6, "the socket also has two tubular openings 70 and 72 which allow for entry of lead wires 74 and 76 which are connected to a starter (not shown). The lead wires have appropriately crimped to them terminals 78 which have a nib 80. The nibs 80 fit within matching apertures 82 provided in the blade terminals 56 and 61, respectively. Boot seals 84 seal the lead wires 74 and 76 within the

tubular openings 70 and 72, respectively. Openings 70 and 72 extend at right angles with respect to the main axis of the base 16 and the socket 50 to provide as great a space possible in the region rearward of surface 90 of the socket 50. A secondary lock and terminal position assurance cap 92 snaps over lock ramps 94 (only one shown) to help ensure the retention of the seal boots 84 within the openings 70 and 72. The seal boots allow the lead wires 74 and 76 to be sealed without the use of a poring compound, which can easily crack and allow moisture to enter. Additionally, since the insulation 96 of the lead wires is often Teflon, silicon or a combination thereof, the boots 84 can seal where adhesive sealing was previously unavailable due to nonadherence to the insulation. The insulation is not typical rubber insulation due to the high voltage dielectric strength requirement" (column 2, line 55-67 to column 3, line 1-9).

Francis discloses the claimed invention except for the shape of the connector. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modify the shape and the design of the connector of Francis in order to better suited the connection of the socket, the power lead of the lamp and the power source.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art are cited to further show the state of the art of composition of a lamp connector.

U.S. Patent No. 3,775,731 to Merki.

U.S. Patent No. 4,812,703 to Kanematsu.

U.S. Patent No. 4,906,891 to Takagi.

U.S. Patent No. 4,949,007 to Takagi.

U.S. Patent No. 5,453,656 to Ui.

U.S. Patent No. 6,452,317 to Tseng.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (703)308-2870. The examiner can normally be reached on 8 A.M. to 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703)305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

D.D.
March 17, 2003